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WHAT IS CLAIMED IS:

1. A method of cutting an electrical wiring line on a substrate, comprising the steps of branching a laser beam into a plurality of branch beams, and directing the plurality of branch beams to the electrical wiring line on the substrate to concurrently cut the electrical wiring line at a plurality of locations.
2. A method according to claim 1, wherein the electrical wiring line is cut by relatively moving the substrate and the plurality of branch beams with respect to each other.
3. A method according to claim 2, wherein the plurality of branch beams are moved relatively with respect to and perpendicularly to the electrical wiring line.
4. A method according to one of claims 2 and 3, wherein an angle θ falls within a range equal to or greater than zero degree and smaller than 90 degrees where the angle θ is formed between a direction of the row of the plurality of branch beams and a direction of the electrical wiring line.

5. A method according to one of claims 1 and 4, wherein the branch beams are directed to the electrical wiring line on the substrate from the side of a surface thereof having the electrical wiring line.

6. A method according to one of claims 1 through 4, wherein the branch beams are directed to the electrical wiring line through the substrate from the opposite side to the surface having the electrical wiring line.

7. A method according to one of claims 1 through 4, wherein the branch beams are directed to the electrical wiring line through the substrate when the electrical wiring line is disposed between a plurality of substrates.

8. A method according to one of claims 1 through 7, wherein debris resulting from cutting of the electrical wiring line is sucked in while the electrical wiring line is cut.

9. A method according to one of claims 1 through 8, wherein a laser beam in the infrared light region is used for said laser beam.

10. A method according to one of claims 1 through 8, wherein the laser beam is generated by a solid-state laser device.

11. A method according to claim 10, wherein a harmonic oscillation of the solid-state laser is used.

12. A method according to one of claims 1 through 8, wherein the laser beam is generated by a gas laser device.

13. A method according to one of claims 1 through 8, wherein the laser beam is generated by a metal vapor laser device.

14. A method according to one of claims 1 through 13, wherein the atmosphere for a cutting process has a pressure lower than the atmospheric pressure.

15. A method according to one of claims 1 through 14, wherein the atmosphere for a cutting process contains no oxygen.

16. A method according to claim 15, wherein the atmosphere for a cutting process contains nitrogen.

17. A method according to claim 15, wherein the atmosphere for a cutting process contains a noble gas.

18. A method according to one of claims 1 through 17, the substrate has a transparency to the laser beam.

19. A method according to claim 18, wherein the substrate is made of glass or silicon.

20. A method according to one of claims 1 through 19, wherein a portion of the electrical wiring line to be cut linearly extends.

21. A method according to one of claims 1 through 20, wherein when electrical wiring lines formed on the substrates of a plurality of electronic devices are cut, the plurality of electronic devices are juxtaposed to each other so that cut ends of the electrical wiring lines of the respective electronic devices are aligned in a line.

22. A method according to one of claims 1 through 21, wherein the electrical wiring line is formed on a transparent layer.

23. A method according to claim 22, wherein the

transparent layer is made of ITO or tantalum pentoxide.

24. A method according to one of claims 1 through 23, wherein the electrical wiring line is made of chromium or ITO.

25. A method for manufacturing an electronic device having a substrate on which a plurality of electrical wiring lines are formed, the method comprising a step of isolating each of the electrical wiring lines from another by cutting the electrical wiring lines,

wherein the electrical wiring lines are cut using a method according to one of claims 1 through 24.

26. A method according to claim 25, wherein an IC to be connected to the electrical wiring lines is mounted on the substrate subsequent to the cutting of the electrical wiring lines.

27. A method according to one of claims 25 and 26, wherein the electronic device is a display.

28. An apparatus for cutting an electrical wiring line, comprising:

a laser generator for generating a laser beam,

an optical beam branching element for branching the laser beam generated by the laser generator into a plurality of branch beams, and

a beam condenser for condensing the branch beams branched by the optical beam branching element.

29. An apparatus according to claim 28, wherein the optical beam branching element also serves as the beam condenser.

30. An apparatus according to one of claims 28 and 29, wherein the optical branching element is one of an optical diffraction element and a phase grating.

31. An apparatus according to one of claims 28 and 30, further comprising a beam splitter element for splitting the laser beam generated by the laser generator into a plurality of beams, wherein the optical beam branching element is arranged at least for one split beam.

32. An apparatus according to claim 31, wherein the beam splitter element is a polarizing beam splitter.

33. An apparatus according to claim 32, further comprising a retardation element disposed in front of the

polarizing beam splitter, for adjusting a polarization plane component ratio of the beam.

34. An apparatus according to one of claims 28 through 33, further comprising a beam expander for adjusting the beam diameter of the beam prior to beam condensation.

35. An apparatus according to one of claims 28 through 34, further comprising a suction mechanism for sucking debris resulting from the cutting of the electrical wiring line.

36. An apparatus for manufacturing an electronic device including a substrate having a plurality of electric wiring lines to be connected with an IC mounted on the substrate comprising:

a laser generator for generating a laser beam,
an optical beam branching element for branching the laser beam generated by the laser generator into a plurality of branch beams, and

a beam condenser for condensing the branch beams branched by the optical beam branching element,

wherein the plurality of electrical wiring lines which are shorted to each other are cut by the branch

beams for isolation from each other and then connected with the IC.

37. An apparatus according to claim 36, wherein the optical beam branching element also serves as the beam condenser.

38. An apparatus according to one of claims 36 and 37, further comprising an IC mounter which mounts the IC on the substrate.

39. An apparatus according to claim 38, wherein an optical system including the laser generator, the optical beam branching element and the beam condenser is incorporated in the IC mounter.

40. An apparatus according to one of claims 36 through 39, wherein the laser generator is a laser diode oscillator.